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PRINTING ORDER PLACING/RECEIVING SYSTEM
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[Claim 1] A printing order placing/receiving system for placing and receiving an order for printing color image data with the use of terminals that are connected to a network, said system being characterized by the fact that the color image data to be printed is transmitted from the terminal of the order-placing end that has image editing functions to the terminal of the order-receiving end and received by the terminal of the order-receiving end, after which the image data proof created by the order-receiving end is transmitted to the terminal of the order-placing end, and the confirmation and modification of said image data proof are carried out between both terminals of the order-receiving end and order-placing end.

[Claim 2] The printing order placing/receiving system stated in Claim 1, in which the terminal of the order-placing party is a personal computer or a box-type image-editing apparatus that is installed in a store, etc.

[Claim 3] The printing order placing/receiving system stated in Claim 1 or 2, in which the terminal of the order-placing end that has image editing functions has a plurality of character design editing programs.

[Claim 4] The printing order placing/receiving system stated in any of Claims 1 through 3, in which the terminal of the order-placing

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end that has image editing functions has a plurality of image design editing programs.

[Claim 5] The printing order placing/receiving system stated in Claim 3 or 4, in which the plurality of character design editing programs and/or the plurality of image design editing programs have a function of displaying print sample images on the monitor for each subject matter, a function of enabling the user to create an image to be printed on the monitor, and a function of combining the aforesaid sample with the image created by the user so as to create the image to be printed.

[Claim 6] The printing order placing/receiving system stated in any of Claims 1 through 5, in which the terminal of the order-placing end that has image editing functions has a translation function.

[Claim 7] The printing order placing/receiving system stated in any of Claims 1 through 6, in which the terminal of the order-placing end that has image editing functions has a function of transmitting and receiving voice and a function of analyzing voice.

[Claim 8] The printing order placing/receiving system stated in any of Claims 1 through 7, in which the terminal of the order-placing end that has image editing functions has an animation function.

[Claim 9] The printing order placing/receiving system stated in any of Claims 1 through 8, in which the terminal of the order-placing end that has image editing functions is equipped with a monitor and

application software that enable the user to give a command by touching the monitor screen directly with a finger, pen, etc.

[Claim 10] The printing order placing/receiving system stated in any of Claims 1 through 9, in which the terminal of the order-receiving end is adapted to import image data from a digital image printer.

[Claim 11] The printing order placing/receiving system stated in Claim 10, in which the importing of digital image from a digital image printer to the terminal is accomplished by reading it with a program software or image scanner.

[Claim 12] The printing order placing/receiving system stated in any of Claims 1 through 10, in which the image data proof that is returned to the order-placing party is displayed on the monitor that is connected to the terminal of the order-placing end.

[Claim 13] The printing order placing/receiving system stated in any of Claims 1 through 12, in which the image data proof that is returned to the order-placing party has been subjected to color conversion that is adapted for the model of the printer that implements the printing or for the printing method.

[Claim 14] The invention of Claim 14 is the printing order placing/receiving system stated in any of Claims 1 through 12, in which the image data proof that is returned to the order-placing party is adapted for the resolution in the actual printing.

[Claim 15] The printing order placing/receiving system stated in any of Claims 1 through 12, in which the image data proof that is returned to the order-placing party has been subjected to color conversion that is adapted for the type of paper used in the actual printing.

[Claim 16] The printing order placing/receiving system stated in any of Claims 1 through 15, in which the image data proof to be returned to the order-placing party is prepared by converting a proof that is output from a proof press or a printer equivalent to it into electronic data.

[Claim 17] The printing order placing/receiving system stated in any of Claims 1 through 16, in which the image data proof to be returned to the order-placing party is the data that is output to a proof press or a printer equivalent to it.

[Claim 18] The printing order placing/receiving system stated in any of Claims 1 through 17 that has a means to compare the pre- and post color-conversion images on one monitor screen in the process of checking the proofed image on the monitor.

[Claim 19] A printing order placing/receiving system for placing and receiving a printing order on the internet using terminals that can be connected to a network, said system being characterized by the fact that a centralized station having image editing functions is placed between the order-placing party and order-receiving party so

that said centralized station executes process controls from placing a printing order to receiving it.

[Claim 20] The printing order placing/receiving system stated in Claim 19, in which the terminal of the order-placing party is a personal computer or a box-type image-editing apparatus that is installed in a store, etc.

[Claim 21] The printing order placing/receiving system stated in Claim 19 or 20, in which an internet-use program that can connect to the centralized station is installed in the terminal of the order-placing party.

[Claim 22] The printing order placing/receiving system stated in any of Claims 19 through 21, in which the centralized station has a plurality of character design editing programs.

[Claim 23] The printing order placing/receiving system stated in any of Claims 19 through 22, in which the centralized station has a plurality of image design editing programs.

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[Claim 24] The printing order placing/receiving system stated in Claim 22 or 24 [sic], in which the plurality of character design editing programs and/or the plurality of image design editing programs have a function of displaying print sample images for each subject matter on the monitor of the terminal of the order-placing end, a function of enabling the user to create an image to be printed on the monitor of the terminal of the order-placing end, and a function of combining the aforesaid sample with the image created by the user so

as to create the image to be printed on the monitor of the terminal of the order-placing end.

[Claim 25] The printing order placing/receiving system stated in any of Claims 19 through 24, in which the centralized station has a translation function.

[Claim 26] The printing order placing/receiving system stated in any of Claims 19 through 25, in which the centralized station has a function of transmitting and receiving voice and a function of analyzing voice.

[Claim 27] The printing order placing/receiving system stated in any of Claims 19 through 26, in which the centralized station has an animation function.

[Claim 28] The invention of Claim 28 is the printing order placing/receiving system stated in any of Claims 19 through 27, in which the centralized station is equipped with a monitor and application software that enable the user to give a command by touching the monitor screen directly with a finger, pen, etc.

[Claim 29] The printing order placing/receiving system stated in any of Claims 19 through 28, in which the centralized station has a color proofing function.

[Claim 30] The printing order placing/receiving system stated in Claim 29, in which the color proofing function has a means to implement color conversion on the image data proof before the printing so as to make the color displayed on the monitor that is connected to

the printer that performs the printing and the color displayed on the monitor of the order-placing end practically the same.

[Claim 31] The printing order placing/receiving system stated in Claim 29, in which the color proofing function has, as one means of expressing difference in colors before and after the color conversion, a color-difference verbalization function that can verbally express a numerically expressed color difference according to the expression method that is based on given provisions that verbalize impressions that human beings receive visually.

[Claim 32] The printing order placing/receiving system stated in Claim 29, in which the color proofing function has a means for indicating differences between the pre- and post-color conversion with arrows.

[Claim 33] The printing order placing/receiving system stated in Claim 29, in which the color proofing function has a means for superposing the pre- and post-color conversion images and indicating the areas that show no difference before and after the conversion with one specific color.

[Claim 34] The printing order placing/receiving system stated in Claim 19, in which the centralized station has an original-reception control function.

[Claim 35] The printing order placing/receiving system stated in Claim 34, in which the original-reception control function has a means for numbering the received data.

[Claim 36] The printing order placing/receiving system stated in Claim 34, in which the original-reception control function has an automatic storage function for automatically storing the numbered order-placing party data for a given period of time.

[Claim 37] The printing order placing/receiving system stated in Claim 36, in which the original-reception control function has a data replacing function that can replace part of the automatically stored image data by the entered number control.

[Claim 38] The printing order placing/receiving system stated in any of Claims 35 to 37, in which the original-reception control function has a control function that performs the total control, from order receiving to delivery, of the numbered order-placing party data and has a search function that enables the order-placing party to find the current status of the ordered printing job.

[Claim 39] The printing order placing/receiving system stated in Claim 19, in which the centralized station has a print control function.

[Claim 40] The printing order placing/receiving system stated in Claim 39, in which the print control function has a means for displaying information regarding the schedule for completing and delivering the printing job.

[Claim 41] The printing order placing/receiving system stated in Claim 39 or 40, in which the print control function has a cost estimating function that can, before the edited data is sent to a

printing apparatus, estimate the cost based on different printing conditions (different printers, paper types, ink types, etc.) using the same data.

[Claim 42] The printing order placing/receiving system stated in any of Claims 39 to 41, in which the print control function has an address control function and remote function for selecting a printer that is the most suitable for the data (delivery address) of an order-placing party whose order has been received.

[Claim 43] The printing order placing/receiving system stated in any of Claims 39 to 42, in which the order-receiving management function has a means for displaying advice regarding a printer other than the one the order-receiving [sic] party has specified or a printing method that is believed to be suitably used by the order-receiving party to print based on the details of the request of the order-receiving [sic] party.

[Claim 44] The printing order placing/receiving system stated in Claim 19, in which the centralized station has the order-receiving management function.

[Claim 45] The printing order placing/receiving system stated in Claim 44, in which the order-receiving management function has a voice-expression function as one of the bidirectional expression methods with the transmitting end regarding the order reception.

[Claim 46] The printing order placing/receiving system stated in Claim 19, in which the centralized station has a color proofing

function, print control function, order-receiving management function, and original-reception control function.

[Claim 47] The printing order placing/receiving system stated in any of Claims 19 to 46, in which the centralized station has an automatic data-update function that automatically updates part of periodically entered data, that is, automatically stored image data, by means of the entered number management.

[Claim 48] The printing order placing/receiving system stated in 4 any of Claims 19 to 47, in which the centralized station has, in a digital image printer or a computer that is connected to the printer, program software that these can share.

[Detailed Description of the Invention]

[0001] [Technical Field of the Invention]

The present invention pertains to a printing order placing/receiving system that is capable of controlling all the processes from placing an order to receiving it between the terminal of the order-placing party and the terminal of the order-receiving party with the use of the internet.

[0002] [Prior Art]

To place and receive an order for a printing job, it is a common practice for a customer to bring an original to be printed to a printing company and check its proof and subsequently for the printing company to make prints if the order-placing party finds no problem with the proof.

[0003] In recent years, order-placing parties who order printing jobs have diverse needs. Furthermore, printing orders are not limited to orders from businesses, and those from individuals are increasing. In this current situation, the demand for printing digital image data is also increasing with the widespread use of personal computers.

[0004] There is also a demand for printing image data that is created by an individual order-placing party with the use of his/her terminal and brought to a printing company. If image data is output to film and brought to a printing company in that form, printed material can be produced in the conventional manner, thus presenting no problem, but the process is not as simple as that if image data is electrically transmitted to a printing company or written on a recording medium, such as a floppy disk (hereinafter referred to as an "FD"), etc., and brought to a printing company.

[0005] Whenever a printing company creates printed material based on image data and mails it to an individual order-placing party, the order-placing party expresses his/her dissatisfaction with the layout, lettering, color, etc. In order to meet this complaint, the printing company prints a proof, but, as the image data becomes more complex, it becomes necessary to repeat this proof printing many times.

[0006] From the standpoint of the order-placing party side, it is not easy to create image data while taking the printing process into consideration. Moreover, it is not easy to electrically transmit the created data to a printing company. For example, even if the order-

placing party desires to transmit the image electrically, it is not possible unless the printing company has a means to receive it.

Sending it on an FD also presents a problem in that, since image data proper is an extremely large volume of data, it cannot be stored on one FD and requires several FDs to store it, which fact leads to a corresponding increase in cost and time, and reading this data also requires a considerable time from the printing company. There is a method for compressing data to store it, but this requires storage technology, and it cannot be performed easily by a layman. The use of MO, etc., is also conceivable, but ordinary PCs are usually not equipped with its driver at present.

[0007] Even if a printing company manages to obtain image data with some effort, it still mails or hand-delivers proofs as before, and the problem of repeated proof printing has not been solved at all.

[0008] Furthermore, printing companies have their strengths and weaknesses, and, in the current situation of diversified printing needs of order-placing parties, there is a demand for quickly providing an order-placing party the information concerning which printing company is suitable for a particular printing job based on the material to be printed, which printing company offers the price that matches the price the order-placing party wants, or the like.

[0009] [Problems that the Invention Intends to Solve]

Accordingly, the present invention intends to provide a printing order placing/receiving system that, in placing and receiving a

printing order, solves the troublesomeness of proof printing; facilitates the transmission of image data from the order-placing end; is capable of providing appropriate information regarding printing companies, cost, etc.; and makes it possible to implement color proofing.

[0010] Furthermore, the present invention also intends to provide a printing order placing/receiving system that makes it possible for an order-placing party to carry out bidirectional information confirmation with a printing company (or a receiving station), to check the output finish around the same time as the receiving of the order, and to confirm the turnaround time; that, since the system of the present invention does not involve the use of an intermediate agent, has the great advantages of a short turnaround time, lower cost, less chance of losing data, etc.; and that enables the printing end to produce printed material with no problem since the printing is done based on the consensus that has been reached with the customer.

[0011] Other objects of the present invention will become apparent from the following description.

[0012] [Means of Solving the Problems]

The invention stated in Claim 1 is a printing order placing/receiving system for placing and receiving an order for printing color image data with the use of terminals that are connected to a network, said system being characterized by the fact that the color image data to be printed is transmitted from the terminal of the

order-placing end that has image editing functions to the terminal of the order-receiving end and received by the terminal of the order-receiving end, after which the image data proof created by the order-receiving end is transmitted to the terminal of the order-placing end, and the confirmation and modification of said image data proof are carried out between both terminals of the order-receiving end and order-placing end.

[0013] The invention of Claim 2 is the printing order placing/receiving system stated in Claim 1, in which the terminal of the order-placing party is a personal computer or a box-type image-editing apparatus that is installed in a store, etc.

[0014] The invention of Claim 3 is the printing order placing/receiving system stated in Claim 1 or 2, in which the terminal of the order-placing end that has image editing functions has a plurality of character design editing programs.

[0015] The invention of Claim 4 is the printing order placing/receiving system stated in any of Claims 1 through 3, in which the terminal of the order-placing end that has image editing functions has a plurality of image design editing programs.

[0016] The invention of Claim 5 is the printing order placing/receiving system stated in Claim 3 or 4, in which the plurality of character design editing programs and/or the plurality of image design editing programs have a function of displaying print sample images on the monitor for each subject matter, a function of

enabling the user to create an image to be printed on the monitor, and a function of combining the aforesaid sample with the image created by the user so as to create the image to be printed. /5

[0017] The invention of Claim 6 is the printing order placing/receiving system stated in any of Claims 1 through 5, in which the terminal of the order-placing end that has image editing functions has a translation function.

[0018] The invention of Claim 7 is the printing order placing/receiving system stated in any of Claims 1 through 6, in which the terminal of the order-placing end that has image editing functions has a function of transmitting and receiving voice and a function of analyzing voice.

[0019] The invention of Claim 8 is the printing order placing/receiving system stated in any of Claims 1 through 7, in which the terminal of the order-placing end that has image editing functions has an animation function.

[0020] The invention of Claim 9 is the printing order placing/receiving system stated in any of Claims 1 through 8, in which the terminal of the order-placing end that has image editing functions is equipped with a monitor and application software that enable the user to give a command by touching the monitor screen directly with a finger, pen, etc.

[0021] The invention of Claim 10 is the printing order placing/receiving system stated in any of Claims 1 through 9, in which

the terminal of the order-receiving end is adapted to import image data from a digital image printer.

[0022] The invention of Claim 11 is the printing order placing/receiving system stated in Claim 10, in which the importing of digital image from a digital image printer to the terminal is accomplished by reading it with a program software or image scanner.

[0023] The invention of Claim 12 is the printing order placing/receiving system stated in any of Claims 1 through 10, in which the image data proof that is returned to the order-placing party is displayed on the monitor that is connected to the terminal of the order-placing end.

[0024] The invention of Claim 13 is the printing order placing/receiving system stated in any of Claims 1 through 12, in which the image data proof that is returned to the order-placing party has been subjected to color conversion that is adapted for the model of the printer that implements the printing or for the printing method.

[0025] The invention of Claim 14 is the printing order placing/receiving system stated in any of Claims 1 through 12, in which the image data proof that is returned to the order-placing party is adapted for the resolution in the actual printing.

[0026] The invention of Claim 15 is the printing order placing/receiving system stated in any of Claims 1 through 12, in which the image data proof that is returned to the order-placing party

has been subjected to color conversion that is adapted for the type of paper used in the actual printing.

[0027] The invention of Claim 16 is the printing order placing/receiving system stated in any of Claims 1 through 15, in which the image data proof to be returned to the order-placing party is prepared by converting a proof that is output from a proof press or a printer equivalent to it into electronic data.

[0028] The invention of Claim 17 is the printing order placing/receiving system stated in any of Claims 1 through 16, in which the image data proof to be returned to the order-placing party is the data that is output to a proof press or a printer equivalent to it.

[0029] The invention of Claim 18 is the printing order placing/receiving system stated in any of Claims 1 through 17 that has a means to compare the pre- and post color-conversion images on one monitor screen in the process of checking the proofed image on the monitor.

[0030] The invention of Claim 19 is a printing order placing/receiving system for placing and receiving a printing order on the internet using terminals that can be connected to a network, said system being characterized by the fact that a centralized station having image editing functions is placed between the order-placing party and order-receiving party so that said centralized station

executes process controls from placing a printing order to receiving it.

[0031] The invention of Claim 20 is the printing order placing/receiving system stated in Claim 19, in which the terminal of the order-placing party is a personal computer or a box-type image-editing apparatus that is installed in a store, etc.

[0032] The invention of Claim 21 is the printing order placing/receiving system stated in Claim 19 or 20, in which an internet-use program that can connect to the centralized station is installed in the terminal of the order-placing party.

[0033] The invention of Claim 22 is the printing order placing/receiving system stated in any of Claims 19 through 21, in which the centralized station has a plurality of character design editing programs.

[0034] The invention of Claim 23 is the printing order placing/receiving system stated in any of Claims 19 through 22, in which the centralized station has a plurality of image design editing programs.

[0035] The invention of Claim 24 is the printing order placing/receiving system stated in Claim 22 or 24 [sic], in which the plurality of character design editing programs and/or the plurality of image design editing programs have a function of displaying print sample images for each subject matter on the monitor of the terminal of the order-placing end, a function of enabling the user to create an

image to be printed on the monitor of the terminal of the order-placing end, and a function of combining the aforesaid sample with the image created by the user so as to create the image to be printed on the monitor of the terminal of the order-placing end.

[0036] The invention of Claim 25 is the printing order placing/receiving system stated in any of Claims 19 through 24, in which the centralized station has a translation function.

[0037] The invention of Claim 26 is the printing order placing/receiving system stated in any of Claims 19 through 25, in which the centralized station has a function of transmitting and receiving voice and a function of analyzing voice. /6

[0038] The invention of Claim 27 is the printing order placing/receiving system stated in any of Claims 19 through 26, in which the centralized station has an animation function.

[0039] The invention of Claim 28 is the printing order placing/receiving system stated in any of Claims 19 through 27, in which the centralized station is equipped with a monitor and application software that enable the user to give a command by touching the monitor screen directly with a finger, pen, etc.

[0040] The invention of Claim 29 is the printing order placing/receiving system stated in any of Claims 19 through 28, in which the centralized station has a color proofing function.

[0041] The invention of Claim 30 is the printing order placing/receiving system stated in Claim 29, in which the color

proofing function has a means to implement color conversion on the image data proof before the printing so as to make the color displayed on the monitor that is connected to the printer that performs the printing and the color displayed on the monitor of the order-placing end practically the same.

[0042] The invention of Claim 31 is the printing order placing/receiving system stated in Claim 29, in which the color proofing function has, as one means of expressing difference in colors before and after the color conversion, a color-difference verbalization function that can verbally express a numerically expressed color difference according to the expression method that is based on given provisions that verbalize impressions that human beings receive visually.

[0043] The invention of Claim 32 is the printing order placing/receiving system stated in Claim 29, in which the color proofing function has a means for indicating differences between the pre- and post-color conversion with arrows.

[0044] The invention of Claim 33 is the printing order placing/receiving system stated in Claim 29, in which the color proofing function has a means for superposing the pre- and post-color conversion images and indicating the areas that show no difference before and after the conversion with one specific color.

[0045] The invention of Claim 34 is the printing order placing/receiving system stated in Claim 19, in which the centralized station has an original-reception control function.

[0046] The invention of Claim 35 is the printing order placing/receiving system stated in Claim 34, in which the original-reception control function has a means for numbering the received data.

[0047] The invention of Claim 36 is the printing order placing/receiving system stated in Claim 34, in which the original-reception control function has an automatic storage function for automatically storing the numbered order-placing party data for a given period of time.

[0048] The invention of Claim 37 is the printing order placing/receiving system stated in Claim 36, in which the original-reception control function has a data replacing function that can replace part of the automatically stored image data by the entered number control.

[0049] The invention of Claim 38 is the printing order placing/receiving system stated in any of Claims 35 to 37, in which the original-reception control function has a control function that performs the total control, from order receiving to delivery, of the numbered order-placing party data and has a search function that enables the order-placing party to find the current status of the ordered printing job.

[0050] The invention of Claim 39 is the printing order placing/receiving system stated in Claim 19, in which the centralized station has a print control function.

[0051] The invention of Claim 40 is the printing order placing/receiving system stated in Claim 39, in which the print control function has a means for displaying information regarding the schedule for completing and delivering the printing job.

[0052] The invention of Claim 41 is the printing order placing/receiving system stated in Claim 39 or 40, in which the print control function has a cost estimating function that can, before the edited data is sent to a printing apparatus, estimate the cost based on different printing conditions (different printers, paper types, ink types, etc.) using the same data.

[0053] The invention of Claim 42 is the printing order placing/receiving system stated in any of Claims 39 to 41, in which the print control function has an address control function and remote function for selecting a printer that is the most suitable for the data (delivery address) of an order-placing party whose order has been received.

[0054] The invention of Claim 43 is the printing order placing/receiving system stated in any of Claims 39 to 42, in which the order-receiving management function has a means for displaying advice regarding a printer other than the one the order-receiving [sic] party has specified or a printing method that is believed to be

suitably used by the order-receiving party to print based on the details of the request of the order-receiving [sic] party.

[0055] The invention of Claim 44 is the printing order placing/receiving system stated in Claim 19, in which the centralized station has the order-receiving management function.

[0056] The invention of Claim 45 is the printing order placing/receiving system stated in Claim 44, in which the order-receiving management function has a voice-expression function as one of the bidirectional expression methods with the transmitting end regarding the order reception.

[0057] The invention of Claim 46 is the printing order placing/receiving system stated in Claim 19, in which the centralized station has a color proofing function, print control function, order-receiving management function, and original-reception control function.

[0058] The invention of Claim 47 is the printing order placing/receiving system stated in any of Claims 19 to 46, in which the centralized station has an automatic data-update function that automatically updates part of periodically entered data, that is, automatically stored image data, by means of the entered number management.

[0059] The invention of Claim 48 is the printing order placing/receiving system stated in any of Claims 19 to 47, in which the centralized station has, in a digital image printer or a computer /7

that is connected to the printer, program software that these can share.

[0060] [Modes of Implementing the Invention]

The following explains modes of implementing the present invention.

[0061] The printing order placing/receiving system of the present invention has two modes of implementation, that is, (1) a mode in which an order-placing party sends image data to be printed over the internet, and a specific printing company receives it and returns an image data proof, thus conducting the order placing/receiving process (see Fig. 1) and (2) a mode in which a centralized station system is installed on the internet--for example, on a home page--and, by means of this, the controls for placing/receiving an order between an order-placing party and a plurality of printing companies is carried out (see Fig. 2).

[0062] With the former case, a program having image editing functions is installed in the terminal of the order-placing end so that the order-placing party can carry out image editing. This installation may be accomplished by purchasing commercially available software from a specific distributor or by downloading from the internet.

[0063] The terminal of the order-placing end having image editing functions may be, as shown in Fig. 1, a personal computer (1) that belongs to an individual or a company or, alternatively, a box-type

terminal (2) that is installed at the storefront of a convenience store or the like and that can connect to the internet. In the latter case, the user (the order-placing party) operates said box-type terminal (2) to carry out image editing.

[0064] By means of a communication network, these terminals (1, 2) at the order-placing end are connected to the terminal (4) of the order-receiving end that is connected to a digital image printer (3) of a specific printing company, thus making it possible to transmit color image data bidirectionally between the terminal (1, 2) of the order-placing end and the terminal (4) of the order-receiving end.

[0065] In the latter case, as shown in Fig. 2, a centralized station system (7) that is connected to a communication network has a program having image editing functions, and said centralized station (7) carries out image editing when accessed from the terminal of the order-placing end. In this case, unlike the former case, it becomes possible to transmit color image data bidirectionally between this centralized station system (7) and the terminal of the order-placing end.

[0066] The terminal of the order-placing end in this case may also be a personal computer (5) that belongs to an individual or a company or, alternatively, a box-type terminal (6) that is installed at the storefront of a convenience store or the like and that can connect to the internet. In the latter case, the user (the order-

placing party) operates said box-type terminal (6) and accesses the centralized station (7) so as to carry out image editing.

[0067] The aforesaid centralized station system (7) is connected to terminals 9A, 9B, etc., of the order-receiving end that are connected to digital image printers 8A, 8B, etc., of a plurality of printing companies. Upon receiving image data to be printed from the centralized station system (7), the terminals (9A, 9B, etc.) of the order-receiving end output said image data to be printed by means of the digital image printers (8A, 9A [sic], etc.)

[0068] Incidentally, the term "editing" used in the specification of the present invention means not only the production of image data but also the proofing of image data.

[0069] The following explains one example of the mode of implementation shown in Fig. 1, referring to the displays on the monitor screen.

[0070] The terminal (1, 2) of the order-placing end having image editing functions has a plurality of image design editing programs and/or a plurality of character design editing programs, and image data to be printed that is comprised of images and/or characters is created by executing these programs.

[0071] Fig. 3 illustrates the initial screen that comes up when the image editing programs are activated by the terminal (1, 2) of the order-placing end. First, by operating the "start" button (10), the screen switches to a printing-subject specifying screen that is used

for specifying the subject that the order-placing party wants to print (see Fig. 4). The following explains a case in which the order-placing party desires to print a business card.

[0072] Incidentally, the button operation that is carried out by the order-placing party to select a command is not limited to the operation with a keyboard or mouse, and it is also desirable to carry out this operation by directly touching the monitor screen with a finger or pen. In this case, it is desirable that a monitor and application software that make it possible to implement this operation be installed in the terminal (1, 2) of the order-placing end.

[0073] The plurality of image design editing programs and/or the plurality of character design editing programs each have a function (sample) for displaying print sample images of each printing subject matter on the monitor of the terminal (1, 2) of the order-placing end, a function (self-production) that enables the order-placing party to create the image to be printed on the monitor of the terminal (1, 2) of the order-placing end, and a function (combination) that can combine the aforesaid print sample image with the self-produced image so as to create an image to be printed on the monitor of the terminal (1, 2) of the order-placing end.

[0074] When, on the screen shown in Fig. 4, the "business card" button is operated, the "sample" button (12), "self-production" button (13), and "combination" button (14) are displayed, as shown in Fig. 5. If the "sample" button (12), for example, is operated here, business-

card layout samples (15) are displayed, as shown in Fig. 6. From these displayed business-card layout samples (15), the order-placing party selects and specifies the desired layout sample (15) directly, with a number input, or the like, and, based on said desired layout sample (15) that has been specified, the order-placing party starts creating business-card image data that the order-placing party desires to print (see Fig. 7). In the layout sample (15), reference numeral 16 indicates the area for pasting the image data of a facial portrait to be formed on the business card.

[0075] Fig. 8 illustrates a character input screen, on which is entered character information that is necessary for creating a business card--for example, a company name (17), office name (18), full name (19), address (20), telephone number and fax number (21), e-mail address (22), and the like. Thereafter, the character type (23) of the character information that is input in the foregoing and the character size (24) of each item (17 through 22) are specified (see Fig. 9 /8). The present invention may be so adapted as to automatically set the character size for each item (17 through 22), such as the company name, full name, etc., to a size that is most suitable as the character information of a business card.

[0076] The terminal (1, 2) of the order-placing end may have a function for automatically translating the input character data, for example, from Japanese into English. This configuration is desirable because the aforesaid input character information in Japanese can be

automatically translated into English and printed on the reverse side of a business card as character information in English.

[0077] The method of inputting this character information is not limited to inputting with the use of the keyboard of the terminal (1, 2) on the order-placing end, and the terminal may have a voice-capturing function that can analyze the voice of the order-placing party and input the character information with said voice.

[0078] With the aforesaid operation, inputting of the character information that is necessary for creating a business card is completed, and a business-card image (25) on which the character information alone has been entered is created (Fig. 10).

[0079] Fig. 11 illustrates an image-file selection screen that is used to read the color image data of a facial portrait in order to create a color facial portrait to be placed on the surface of the business card.

[0080] The color image data of a facial portrait is read from an image data file into which has been imported a picture portrait that the order-placing party owns. Here, the reading is carried out by selecting the file format, such as GIF, TIF, J. PEG [sic], etc., of the image data.

[0081] If there is more than one read color image (26), one of them is specified and selected, as shown in Fig. 12. This selection/specification of image data may be accomplished by direct selection/specification of the area on which the desired image is

displayed or by entering the number of the desired image, as shown in the figure. The color image data of the selected facial portrait is pasted to the facial-portrait pasting section (16) (see Fig. 7) of the business-card image data into which the character information has already been input, thus completing the business-card image (27) onto which is pasted the character information and color image data (26) of the facial portrait (see Fig. 13).

[0082] Upon completion of all the procedures for creating print image data, the monitor returns to the initial screen shown in Fig. 3. By operating the "transmission" button (28) at this stage, the business-card image data shown in Fig. 13 is transmitted, through a communication network, to the terminal (4) of the order-receiving end that is connected to the digital image printer (3) of a specific printing company that is connected by means of the aforesaid communication network.

[0083] The terminal (4) of the order-receiving end executes printing by means of the digital image printer (3) based on the aforesaid business-card image data that has been transmitted from the terminal (1, 2) of the order-placing end. However, in order to correct differences between the printing result that the order-placing party desires and the result of the actual printing by the digital image printer (3), the order-receiving party must present a proof sample of the business-card image data to the order-placing party so as to obtain the final printing approval from the order-placing party. For

this purpose, the terminal (4) of the order-receiving end is adapted to import image data from the digital image printer (3) so as to enable the terminal (4) of the order-receiving end to return a proof sample created by said digital image printer (3) as image data proof to the terminal (1, 2) of the order-placing end.

[0084] This image data proof is obtained by converting a proof sample of the business-card image data into electronic data, and it is the data that is used when the digital printer (3) actually outputs printed products.

[0085] This importing of the image data from the digital image printer (3) to the terminal (4) is implemented by program software. Alternatively, it may be implemented by reading a print sample that is actually output from the digital image printer (3) with an image scanner.

[0086] The image data proof (29) of the business-card image data that is returned from the terminal (4) of the order-receiving end to the terminal (1, 2) of the order-placing end in the aforesaid manner is displayed on the monitor of the terminal (1, 2) of the order-placing end (Fig. 14). Here, the image data proof (29) to be returned to the terminal (1, 2) of the order-placing end is subjected to color conversion that is adapted for the model or printing method of the digital image printer (3) that carries out the printing. This enables the order-placing party to see on the monitor of the terminal (1, 2) the image data proof (29) having the same color as that of the actual

output of the printer (3); consequently, a consensus can be reached easily between the order-placing party and the order-receiving party.

[0087] The color conversion in the present invention is expressed as follows.

[0088]

$$\begin{pmatrix} X_2 \\ Y_2 \\ Z_2 \end{pmatrix} = A \begin{pmatrix} X_1 \\ Y_1 \\ Z_1 \end{pmatrix}$$

A ... color conversion table

X_1, Y_1, Z_1 ... image data that has been input

X_2, Y_2, Z_2 ... image data proof that is reproduced on the monitor and that is to be output by the printer

[0089] It is preferable that this image data proof (29) that is displayed on the monitor of the terminal (1, 2) of the order-placing end is further adapted for the resolution of the actual printing.

[0090] The present invention preferably has a means to display the image data proof (29) returned to the terminal (1, 2) of the order-placing end in such a manner that makes it possible to compare, on one screen of the monitor of said terminal (1, 2), the aforesaid color-converted image data proof (29) and the image data (30) that has been sent from the terminal (1,2) of the order-placing end and that has not been color-converted (see Fig. 15). This configuration enables the order-placing party to compare the image to be actually printed and the image that was created by the order-placing party on the same monitor screen. Since color differences, in particular, between the image to be actually printed and the image that was created by the

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order-placing party can be checked by contrasting them, the order-placing party can easily identify areas that need corrections.

[0091] If any correction is found to be necessary as a result, the order-placing party personally makes the correction from the terminal (1, 2) of the order-placing end on the image data proof (29) - for example, correction of the colors of the facial portrait, character data, etc., after which the corrected data is transmitted again to the terminal (4) of the order-receiving end. Until the image data to be printed that the order-placing party desires is created, the same procedure is repeated.

[0092] Once the image data to be printed that the order-placing party desires is created through the bidirectional communication with the terminal (4) of the order-receiving end, the order-placing party places an order to the order-receiving end.

[0093] Fig. 16 shows an order-placing screen, and the order-placing party inputs printing conditions, including the paper type (31), the paper size (32), the number of prints (33), the desired delivery date (34), and so forth and transmits them to the terminal (4) of the order-receiving end.

[0094] If, depending on the type of the paper to be used in the printing process, the color tone of the printed image could be different from that of the image data to be printed that is transmitted from the terminal (1, 2) of the order-placing end, it is advisable to input the aforesaid printing conditions, including the

paper type (31), and send the printing conditions together with the business-card image (27) to the terminal (4) of the order-receiving end at the time of transmitting the business-card image (27) from the terminal (1, 2) of the order-placing end to the terminal (4) of the order-receiving end. Accordingly, in this case, it is preferable that the image data proof (29) to be returned from the terminal (4) of the order-receiving end be subjected to color conversion adapted for the paper type that is set as a printing condition.

[0095] At the time of placing an order, the order-placing party simultaneously transmits information that is required for identifying the order-placing party--for example, the address, full name, and telephone number of the order-placing party and the ID number, password, etc., that are issued for the purpose of order-placing party service--to the terminal (4) of the order-receiving end. The order-receiving party, that is, a printing company, sends back to the order-placing end the cost, delivery date, and other information based on the details of the order request. After the order-placing party checks and accepts the cost, delivery date, and other information that are sent back from the order-receiving end, the order-placing party sends a request to start the printing job. Upon receiving this request to start the printing job from the order-placing party, the order-receiving party prints business cards based on the final image data according to the printing conditions that have been specified. The

printed business cards are delivered from the printing company, which is the order-receiving party, to the order-placing party by mail.

[0096] The explanation in the foregoing is applicable to the case in which the "sample" button (12) on the screen shown in Fig. 5 is operated. When the "self production" button (13) is operated on the screen shown in Fig. 5, the self-produced business-card image (27) is read, after which the procedures illustrated in Fig. 13 and those that follow are carried out. When the "combination" button (14) is operated on the screen shown in Fig. 5, image data that has been created and a sample are combined, thereby creating a business-card image (27), after which the procedures illustrated in Fig. 13 and those that follow are carried out.

[0097] The explanation in the foregoing is applicable to the case in which "business card" is selected in Fig.4 when specifying the subject to be printed, but placing/receiving orders for other image data, such as various types of invitations, new year greeting cards, calendars, posters, etc., can also be carried out in the same manner by means of the bidirectional communication between the terminal (1, 2) of the order-placing end and the terminal (4) of the order-receiving end.

[0098] In the aforesaid invention, the images--for example, input-prompting images, etc.--that are displayed on the screen of the monitor of the terminal (1, 2) on the order-placing end are not limited to still images and could be presented as animated images.

Heretofore, when general users attempted to place printing orders, they sometime encountered difficulty even with the assistance of specialists at output centers, etc., due to differences in their knowledge. By presenting input-prompting images, etc., as animated images, as mentioned in the foregoing, even if a user who is placing a printing order for the first time does not have special knowledge of printing, the user can place the order request smoothly according to the animated guide displayed on the screen.

[0099] Next, the following explains one example of the mode of implementation shown in Fig. 2, referring to the displays on the monitor screen.

[0100] In this mode of implementation, it is preferable for the terminal (5, 6) on the order-placing end to have an internet-use program that can connect to the centralized station system (7) over a communication network installed in it.

[0101] Fig. 17 illustrates the initial screen that appears when the terminal (5, 6) of the order-placing end accesses the centralized station system (7) by means of the internet and thus activates the printing system, on which screen are shown an "order-receiving" button (35), which is used for performing the printing-inquiry receiving management, an "original-receiving" button (36) for managing the reception of color image data that the order-placing party wishes to print, a "print" button (37) for controlling a printing request, and an "editing" button (38) for creating/editing image data.

[0102] By operating the "order-receiving" button (35), a printing inquiry is received. In the process of receiving a printing inquiry by the order-placing party, the mode of receiving the inquiry varies depending on whether the order-placing party is the first-time user or has used the system before.

[0103] Incidentally, the button operation that is carried out by the order-placing party to select a command is not limited to the operation with a keyboard or mouse, and it is also desirable to carry out this operation by directly touching the monitor screen with a finger or pen. In this case, it is desirable that a monitor and application software that make it possible to implement this operation be installed in the terminal (5, 6) of the order-placing end.

[0104] If the order-placing party specifies the "first-timer user" button (39), the monitor switches to a screen that prompts the user to input personal data that is necessary for identifying the order-placing party--for example, address (41), full name (42), telephone number (43), etc.--, as shown in Fig. 19, and the order-placing party inputs the required personal data. In the case of making the payment by means of a credit card, the screen may have a column /10 for inputting a credit card company name (44), a column for inputting a credit card number (45), and so forth. When these personal information items are input, the centralized station system (7) issues a discrete ID number for each order-placing party (Fig. 20). Here, when the order-placing party inputs some password in the password

input column (46), the identity confirmation between the order-placing party and the centralized station system (7) becomes possible.

[0105] If the order-placing party specifies the "twice or more use" button (40) in Fig. 18, the monitor switches to a screen that prompts the user to input the ID number and password, as shown in Fig. 21. When the order-placing party inputs the ID number and password to the ID-number input column (47) and password input column (48), the centralized station system (7) identifies the order-placing party.

[0106] Once the centralized station system (7) completes the identification of the order-placing party in the aforesaid printing inquiry process, the personal data of the order-placing party is sent to the editing function. Fig. 22 is a flowchart of the aforesaid operation conducted by the printing-inquiry receiving function.

[0107] Upon completion of establishing the identity of the order-placing party, the initial screen shown in Fig. 17 is shown again. Thereafter, when the "editing" button (38) is operated, image data is created or edited. Here, it is assumed that the order-placing party used the system one or more times before, and, by establishing the identity of the order-placing party, a list of the orders (49) that the order-placing party placed in the past is displayed. The order-placing party can select either to create new image data by referring to the list (49) or to create entirely new data. The following explains the case in which the "reference creation" button (50) is operated so as to create a business card by reference.

[0108] When the "reference creation" button (50) is operated and the number assigned to the "business card" is entered in the number input column (51), the business-card image (52) that the order-placing party created in the past is displayed, as shown in Fig. 24.

[0109] In the case of making some change to this business-card image (52), the "yes" button (53) is operated, thus displaying a list (54) of items to be changed on the business-card image (52) (Fig. 25). By marking the checking column (54a) for the desired change, the change that the order-placing party wishes to make is specified, after which the editing is carried out. The following explains a case of making a change to the facial portrait.

[0110] The color image data of a facial portrait is read from an image data file into which has been imported a picture portrait that the order-placing party owns (Fig. 26). Here, the reading is carried out by selecting the file format, such as GIF, TIF, J. PEG [sic], etc., of the image data, and the data is transmitted to the centralized station system (7). If there are more than one read color image (55), one of them is specified and selected, as shown in Fig. 27. This selection/ specification of image data may be accomplished by direct selection/specification of the area on which the desired image is displayed or by entering the number of the desired image, as shown in the figure. Reference numeral 56 indicates the color image of the facial portrait in the business-card image (52) (Fig. 24) that was created in the past, and the present invention is adapted to make it

possible to compare this image with the newly imported image data (55) on the same screen.

[0111] The color image data of the selected facial portrait is pasted to the facial-portrait pasting section of the business-card image (52), thereby completing the production of a new business-card image (57) (Fig. 28).

[0112] When the order-placing party opts for creating new data in Fig. 23 or when the order-placing party is a first-time user, the same procedures as those that are illustrated in Figs. 14 through 13 are carried out. However, in Fig. 11, the color image data of the facial portrait that is read from the image data file into which has been imported a facial portrait that the order-placing party owns is transmitted to the centralized station system (7).

[0113] Upon completion of the editing of the business-card image (57), the monitor returns to the initial screen shown in Fig. 17. Thereafter, by operating the "original receiving" button (36), the color image data of the business-card image (57) is sent to the original receiving function, which then implements the original-receiving control.

[0114] Fig. 29 illustrates an operational flowchart of the original-receiving control function. First of all, when the business-card image (57) is sent from the editing function (S1), the file format of the image data of said business-card image (57) is checked (S2). Thereafter, if the order-placing party has a printing company

that the order-placing party prefers to use for the printing job, the printer of this specified company is identified. This designation of a particular printing company may be accomplished by the order-placing party's selecting, upon completion of creating the business-card image (57), the desired printing company among a plurality of printing companies that are connected with the centralized station system (7). Alternatively, the centralized station system (7) may automatically designate the most suitable printing company according to the subject matter of printing or based on the data (for example, address) that identifies the order-placing party.

[0115] Once the printer to be used for output is identified, it is checked to see if the file format of the image data of the business-card image (57) matches the file format that the printer can import (S4). If it does not match, the file format of the image data of the business-card image (57) is converted to the file format that the printer can import (S5), whereas, if it matches, the image data of the business-card image (57) is directly sent to the print control function (S6). After the image data is sent to the print control function, the color image data of the business-card image (57) is stored (S7).

[0116] It is preferable for the present invention to have a means for numbering received data--for example, color image data and the personal data of an order-placing party--in this original-reception control process. Numbering the received data facilitates the

subsequent management of the order-placing party data. It is also desirable for the present invention to have an automatic storage function for automatically storing the order-placing party data thus numbered for a given period of time.

[0117] It is also desirable for the present invention to have a data-replacement function that is capable of implementing partial data replacement by means of the registered number control.

[0118] Upon completion of the original receiving control process for the business-card image (57), the monitor returns to the initial /11 screen shown in Fig. 17. Thereafter, by operating the "print" button (37), the color image data of the business-card image (57) is sent to the print control function, after which the control of the print request for the color image data of the business-card image (57) is implemented.

[0119] Fig. 31 [sic] illustrates the operational flow of the print control function. When the color image data of the business-card image (57) is transmitted from the original-receiving control section (S11), the screen shows a list of printing companies that can be used (S12). Here, it is preferable that the printing conditions have been set. By having the printing conditions set, it becomes possible to estimate the cost based on different printing conditions, such as different printers, paper types, ink types, etc., and each printing company presents its estimate and turnaround time based on these conditions (S13). The order-placing party checks these estimates and

turnaround times and selects and specifies the desired printing company (S14), thus determining the printing company to be used (S15). The present invention may so configured that, in this process of specifying a printing company by the order-placing party, printers or printing methods that are believed to be suitable for the printing job besides those that are specified by the order-placing party are displayed as advice.

[0120] The centralized station system (7) returns the color image data of the business-card image (57) and the printing conditions to the terminal (5, 6) of the order-placing end (S16). Fig. 31 illustrates a screen display that shows the business-card image (57), printing conditions, etc., that have already been determined. Here, the present invention is adapted to enable the order-placing party to check the printed image so as to confirm the printed state resulting from the actual printing.

[0121] In order for the order-placing party to check the printed image (S17), the color image data of the business-card image (57) is sent to the centralized station system (7) again. If the terminal of the order-placing end is a personal computer of an individual or a company, the monitor displays a screen that prompts the user to input the information regarding the monitor of this terminal (5) (Fig. 32), thereby identifying the monitor owned by the order-placing party (S18). Once the prescribed items, such as the manufacturer name (58), model (59), etc., of the monitor are entered, the centralized station system

(7) converts (color conversion) the color image data of the business-card image (57) to the color adapted for the model or printing method of printers 8A, 8B, etc., of the determined printing company and for the monitor of the order-placing end, after which the data is sent back to the terminal (5, 6) of the order-placing end (S20).

[0122] The image data proof that is returned to the terminal (5, 6) of the order-placing end is displayed, as shown in Fig. 33, in such a manner that the pre-proofing business-card image (57) and the image proof (60) can be compared on one screen. This enables the order-placing party to see on the monitor of the terminal (1, 2 [sic]) the image proof (60) having the same color as that of the actual output of the printer (8A, 8B, etc.); consequently, a consensus can be reached easily between the order-placing party and the order-placing party.

[0123] It is preferable for the color conversion to be carried out in such a manner that the colors that are displayed on the monitor of the terminal (5, 6) of the order-placing end are also practically the same as those that are displayed on the monitors of the terminals (9A, 9B, etc.) that are connected to the printers (8A, 8B, etc.) of the order-receiving end, that is, a printing company. This configuration enables the order-receiving party to carry out the printing while checking the color image in the colors that have been confirmed by the order-placing party; therefore, the printing result can be compared with the color image that has been confirmed by the

order-placing party, which makes it possible to produce prints that are more satisfactory to the order-placing party.

[0124] The foregoing explained the mode of simply comparing the image proof (60) with the pre-proofing business-card image (57) on one screen. The centralized station system (7) may be equipped with a color-difference verbalization function that can numerically convert the color difference between both images (57, 60) and express it according to the expression method that is based on given provisions that verbalize impressions that human beings receive visually, thus making it possible to verbally express a difference in colors before and after the color conversion.

[0125] Furthermore, the centralized station system (7) may preferably be equipped with a means for indicating differences between the pre- and post-color conversion with arrows, thus making it possible to identify the sections having different colors before and after the color conversion.

[0126] Alternatively, the centralized station system (7) may be equipped with a means that places the pre- and post-color conversion images (57, 60) one on top of the other, instead of contrasting both images (57, 60) on one screen, and that displays the sections having no color difference in a specific color, for example, in white, etc.

[0127] If the order-placing party wishes to make further correction as a result of checking the image proof (60), the order-placing party personally corrects the colors of the facial portrait,

character data, etc., on the image proof (60), using the terminal (5, 6) of the order-placing end, and this corrected data is transmitted to the centralized station system (7) again. Until the image data to be printed that the order-placing party desires is created, this procedure is repeated.

[0128] Once the production of the print image data that the order-placing party desires has been completed by means of the bidirectional communication with the centralized station system (7), the final color image data is transmitted from said centralized station system (7) to the terminal (9A, 9B, etc.) of the designated printing company (S21). Upon receiving the image data to be printed from the centralized station system (7), the order-receiving party prints business cards according to the set printing conditions. The printed business cards are delivered from the printing company, which is the order-receiving party, to the order-placing party by mail.

[0129] In the aforesaid invention also, the images--for example, input-prompting images, etc.--that are displayed on the screen of the monitor of the terminal (5, 6) on the order-placing end are not limited to still images and could be presented as animated images. Even if a user who is placing a printing order for the first time does not have special knowledge on printing, the user can place the order request smoothly according to the animated guide displayed on the screen.

[Brief Explanation of the Drawings]

[Fig. 1] A conceptual drawing that illustrates one example of the printing order placing/receiving system pertaining to the present invention.

[Fig. 2] A conceptual drawing that illustrates another example of the printing order placing/receiving system pertaining to the present invention.

[Fig. 3] A plane view that illustrates a display example on the monitor screen in the printing order placing/receiving system pertaining to the present invention

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[Fig. 4] A plane view that illustrates a display example on the monitor screen in the printing order placing/receiving system pertaining to the present invention.

[Fig. 5] A plane view that illustrates a display example on the monitor screen in the printing order placing/receiving system pertaining to the present invention.

[Fig. 6] A plane view that illustrates a display example on the monitor screen in the printing order placing/receiving system pertaining to the present invention.

[Fig. 7] A plane view that illustrates a display example on the monitor screen in the printing order placing/receiving system pertaining to the present invention.

[Fig. 8] A plane view that illustrates a display example on the monitor screen in the printing order placing/receiving system pertaining to the present invention.

[Fig. 9] A plane view that illustrates a display example on the monitor screen in the printing order placing/receiving system pertaining to the present invention.

[Fig. 10] A plane view that illustrates a display example on the monitor screen in the printing order placing/receiving system pertaining to the present invention.

[Fig. 11] A plane view that illustrates a display example on the monitor screen in the printing order placing/receiving system pertaining to the present invention.

[Fig. 12] A plane view that illustrates a display example on the monitor screen in the printing order placing/receiving system pertaining to the present invention.

[Fig. 13] A plane view that illustrates a display example on the monitor screen in the printing order placing/receiving system pertaining to the present invention.

[Fig. 14] A plane view that illustrates a display example on the monitor screen in the printing order placing/receiving system pertaining to the present invention.

[Fig. 15] A plane view that illustrates a display example on the monitor screen in the printing order placing/receiving system pertaining to the present invention.

[Fig. 16] A plane view that illustrates a display example on the monitor screen in the printing order placing/receiving system pertaining to the present invention.

[Fig. 17] A plane view that illustrates a display example on the monitor screen in the printing order placing/receiving system pertaining to the present invention.

[Fig. 18] A plane view that illustrates a display example on the monitor screen in the printing order placing/receiving system pertaining to the present invention.

[Fig. 19] A plane view that illustrates a display example on the monitor screen in the printing order placing/receiving system pertaining to the present invention.

[Fig. 20] A plane view that illustrates a display example on the monitor screen in the printing order placing/receiving system pertaining to the present invention.

[Fig. 21] A plane view that illustrates a display example on the monitor screen in the printing order placing/receiving system pertaining to the present invention.

[Fig. 22] A flowchart illustrating the operational process of the order receiving function in the printing order placing/receiving system pertaining to the present invention.

[Fig. 23] A plane view that illustrates a display example on the monitor screen in the printing order placing/receiving system pertaining to the present invention.

[Fig. 24] A plane view that illustrates a display example on the monitor screen in the printing order placing/receiving system pertaining to the present invention.

[Fig. 25] A plane view that illustrates a display example on the monitor screen in the printing order placing/receiving system pertaining to the present invention.

[Fig. 26] A plane view that illustrates a display example on the monitor screen in the printing order placing/receiving system pertaining to the present invention.

[Fig. 27] A plane view that illustrates a display example on the monitor screen in the printing order placing/receiving system pertaining to the present invention.

[Fig. 28] A plane view that illustrates a display example on the monitor screen in the printing order placing/receiving system pertaining to the present invention.

[Fig. 29] A flowchart illustrating the operational process of the original-receiving control function in the printing order placing/receiving system pertaining to the present invention.

[Fig. 30] A flowchart illustrating the operational process of the print control function in the printing order placing/receiving system pertaining to the present invention.

[Fig. 31] A plane view that illustrates a display example on the monitor screen in the printing order placing/receiving system pertaining to the present invention.

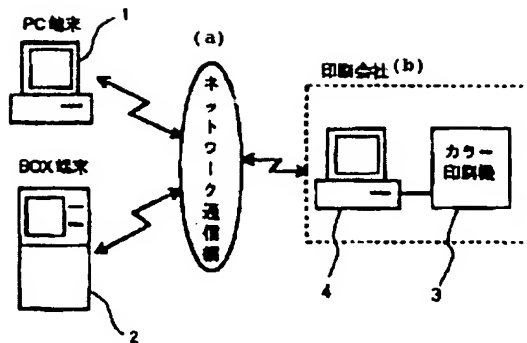
[Fig. 32] A plane view that illustrates a display example on the monitor screen in the printing order placing/receiving system pertaining to the present invention.

[Fig. 33] A plane view that illustrates a display example on the monitor screen in the printing order placing/receiving system pertaining to the present invention.

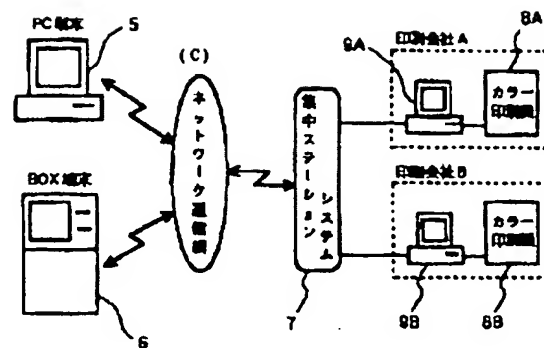
[Explanation of Reference Numerals]

1, 2, 5, 6	terminal on the order-placing end
3, 8A, 8B	digital image printer
4, 9A, 9B	terminal on the order-receiving end
7	centralized station system
15	print sample image
27	color image data (business-card image)
29	image data proof

[FIG. 1]



[FIG. 2]



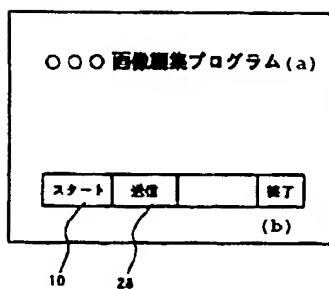
[Fig. 1]

Key: 1) PC terminal; 2) box terminal; 3) color printer; a) communication network; b) printing company.

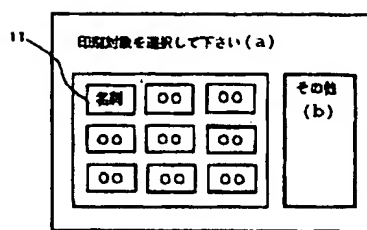
[Fig. 2]

Key: 5) PC terminal; 6) box terminal; 7) centralized station system; 8A, 8B) color printer; A, B) printing company; C) communication network.

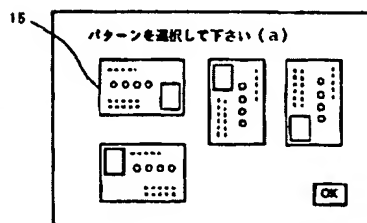
[FIG. 3]



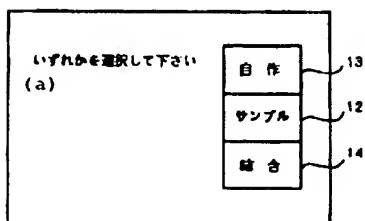
[FIG. 4]



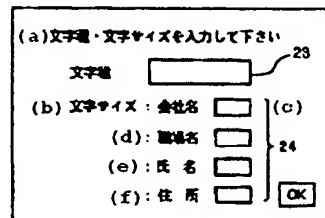
[FIG. 6]



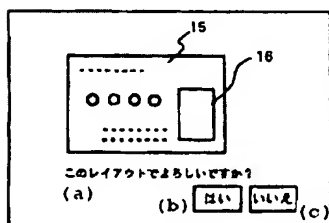
[FIG. 5]



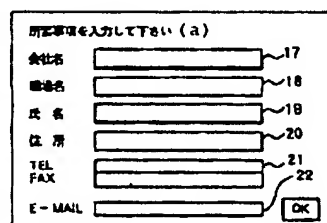
[FIG. 9]



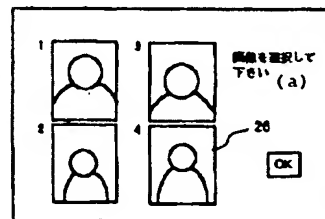
[FIG. 7]



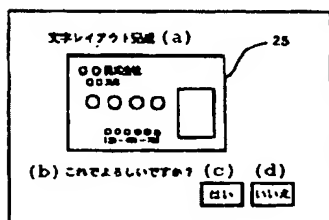
[FIG. 8]



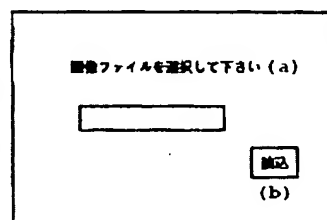
[FIG. 12]



[FIG. 10]



[FIG. 11]



[Fig. 3]

Key: a) image editing programs; b) end; 10) start; 28) transmission.

[Fig. 4]

Key: a) Select the subject to be printed; b) others; 11) business card.

[Fig. 5]

Key: a) Select one; 12) sample; 13) self-production; 14) combination.

[Fig. 6]

Key: a) Select a pattern.

[Fig. 7]

Key: a) Is this the layout you want?; b) yes; c) no.

[Fig. 8]

Key: a) Enter the items below; 17) company name; 18) office name; 19) full name; 20) address.

[Fig. 9]

Key: a) Enter the character type and character size; b) character size; c) company name; d) office name; e) full name; f) address; 23) character type.

[Fig. 10]

Key: a) completed character layout; b) Is this OK?; c) yes; d) no.

[Fig. 11]

Key: a) Select an image file; b) import.

[Fig. 12]

Key: a) select an image.

[FIG. 13]

レアウト完成 (a)

〇〇〇〇〇〇 (b)

〇〇〇〇

〇〇〇〇〇〇

ID-123-789

27

(c) これでよろしいですか? (d) (e)

はい いいえ

[FIG. 14]

修正画面表示 (a)

〇〇〇〇〇〇 (b)

〇〇〇〇

〇〇〇〇〇〇

ID-123-789

29

(c) これでよろしいですか? はい いいえ

(d) (e)

[FIG. 16]

印刷条件を設定して下さい (a)

紙 種 31

サ イ ズ 32

冊 数 33

希望納期 34

OK

[FIG. 15]

30

修正画面

〇〇〇〇〇〇

〇〇〇〇

〇〇〇〇〇〇

ID-123-789

29

(a) これでよろしいですか? はい いいえ

(b) (c)

[FIG. 19]

所望事項を入力して下さい (a)

住 所 41

氏 名 42

TEL 43

クレジット会社名 44

クレジットNO. 45

OK

[FIG. 17]

〇〇〇印刷システム (a)

35 36 37 38

受注 入庫 印刷 販売

[FIG. 18]

(a) あなたのご利用状況をお知らせ下さい

初めて利用する 39

2回目以降の利用 40

[FIG. 20]

(a) あなたのID番号は

1234567 です

(b) パスワードを入力して下さい

48

OK

[FIG. 21]

(a) あなたのID番号とパスワードを入力して下さい

ID番号 47

パスワード 48

OK

[FIG. 23]

49

1. 名刺 4. 〇〇

2. 〇〇 5. 〇〇

3. 〇〇 6. 〇〇

(a) 紙張作成

50

51

[FIG. 24]

〇〇〇〇〇〇 (b)

〇〇〇〇

〇〇〇〇〇〇

ID-123-789

52

(a) 変更しますか? (b) (c)

53 はい いいえ

[Fig. 13]

Key: a) layout completed; b) --corporation; c) Is this OK?; d) yes; e) no.

[Fig. 14]

Key: a) proof display; b) --corporation; c) Is this OK?; d) yes; e) no.

[Fig. 15]

Key: a) Is this OK?; b) yes, c) no; 29) after the proofing; 30) before the proofing.

[Fig. 16]

Key: a) Set the printing conditions; 31) paper type; 32) size; 33) number of prints; 34) desired delivery date.

[Fig. 17]

Key: a) printing system; 35) order receiving; 36) original receiving; 37) printing; 38) editing.

[Fig. 18]

Key: a) Give information about your status as the user. 39) first-time user; 40) twice or more use.

[Fig. 19]

Key: a) Enter the items below; 41) address; 42) full name; 44) credit card company name; 45) credit card No.

[Fig. 20]

Key: a) Your ID number is: 1234567; b) Enter your password.

[Fig. 21]

Key: a) Enter your ID number and password; 47) ID number; 48) password.

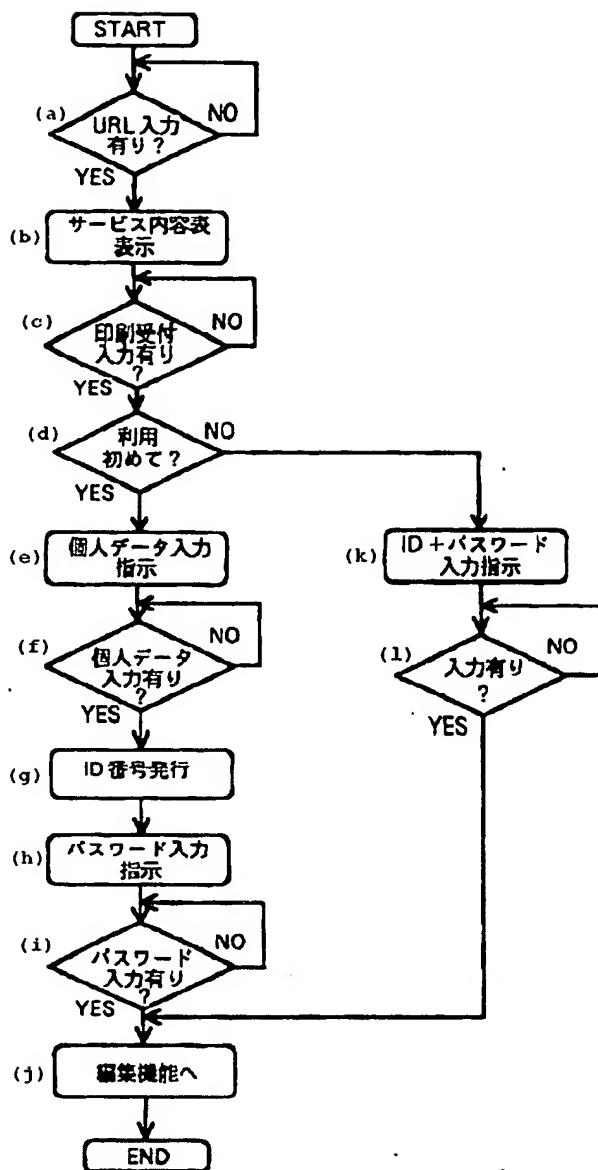
[Fig. 23]

Key: a) new production; 1) business card; 50) production by reference.

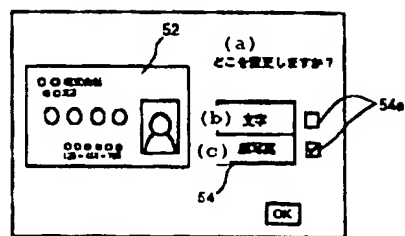
[Fig. 24]

Key: a) Do you want to make changes?; b) yes; c) no.

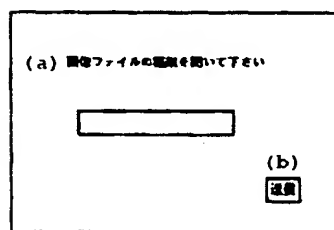
[FIG. 22]



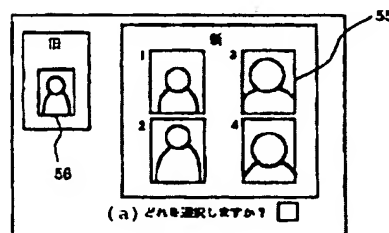
[FIG. 25]



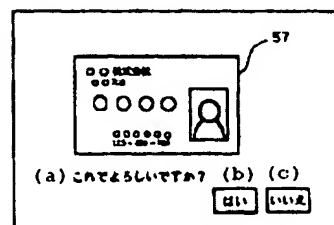
[FIG. 26]



[FIG. 27]



[FIG. 28]



[Fig. 22]

Key: a) Is there a URL input?; b) A table of service details is displayed; c) Is there a print-inquiry input?; d) first-timer user?; e) personal data entry is prompted; f) Is personal data entered?; g) Issue an ID number; h) password entry is prompted; i) Is a password entered?; j) to the editing function; k) the entry of ID + password is prompted; l) Entered?

[Fig. 25]

Key: a) What do you want to change?; b) character; c) facial portrait.

[Fig. 26]

Key: a) Ask [sic] the type of the image file; b) submit.

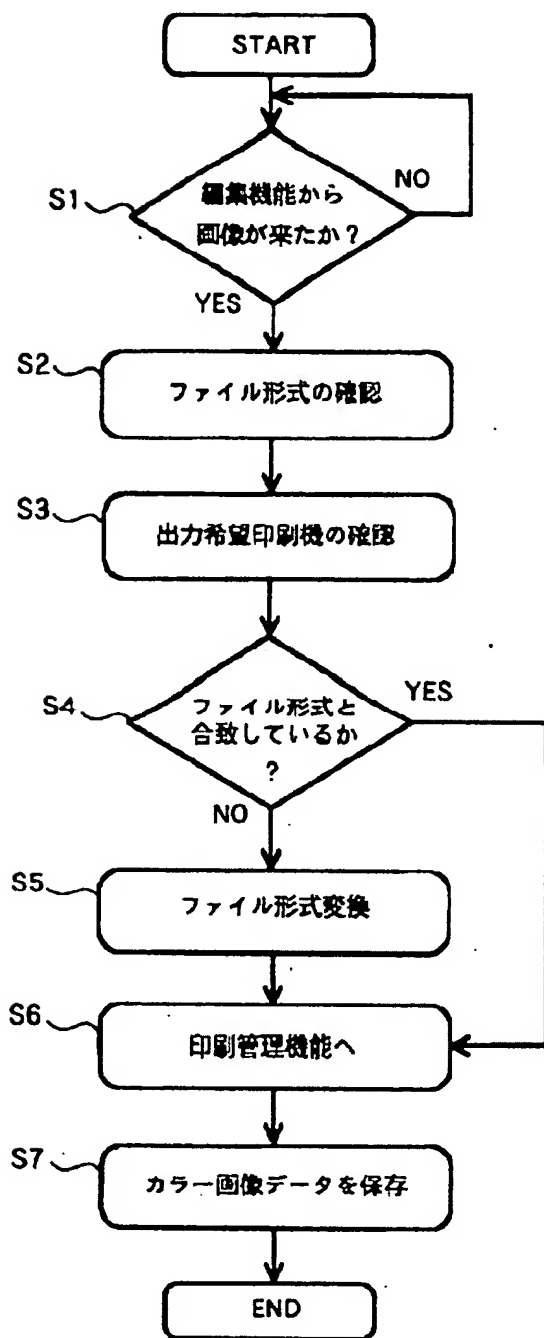
[Fig. 27]

Key: a) Which do you want to select?

[Fig. 28]

Key: a) Is this OK?; b) yes; c) no.

[FIG. 29]



[FIG. 31]

57

条件 (d)

納期 00 日 (e)

数量 00 円 (f)

紙種 コート紙 00 (g)

厚さ 00 dpi (h)

印刷機 00 (i)

印刷イメージを記憶しますか?

(a) はい (b) いいえ (c)

[FIG. 32]

(a) あなたのモニターは?

(b) メーカー名 58

(c) 機種名 59

OK

[FIG. 33]

57

50

仕上がりイメージ

(a) これでよろしいですか?

はい (b) いいえ (c)

[Fig. 29]

Key: S1) Is the image received from the editing function?; S2) check the file format; S3) check the printer to be used for printing; S4) Match with the file format?; S5) convert the file format; S6) to the print control function; S7) store the color image data.

[Fig. 31]

Key: a) Do you want to check the print image?; b) yes; c) no; d) conditions; e) delivery date: __ day; f) cost: __ yen; g) paper type: coated paper; h) image; i) printer.

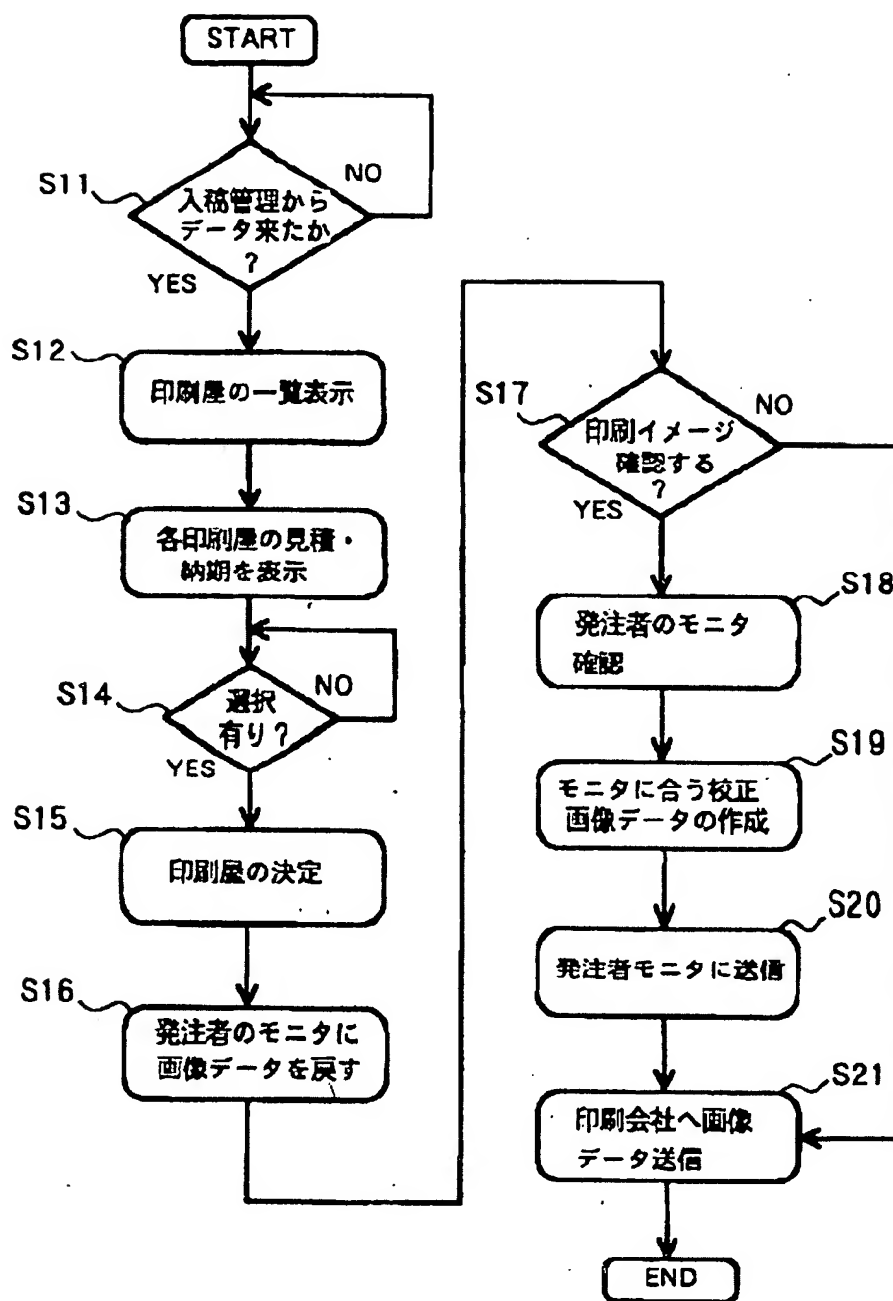
[Fig. 32]

Key: a) about your monitor; b) manufacturer name; c) model.

[Fig. 33]

Key: a) Is this OK?; b) yes; c) no; 60) finished image.

【図30】



[Fig. 30]

Key: S11) Is the data received from the original-receiving control function?; S12) display a list of printing companies; S13) display the estimate and delivery date of each printing company; S14) Selected?; S15) the printing company to be used is determined; S16) return the image data to the monitor of the order-placing party; S17) check the image to be printed?; S18) identify the monitor of the order-placing party; S19) create an image data proof that is suitable for the monitor; S20) transmit to the monitor of the order-placing party; S21) transmit the image data to the printing company.